LKT Laboratories, Inc.

15-Acetyl-deoxynivalenol

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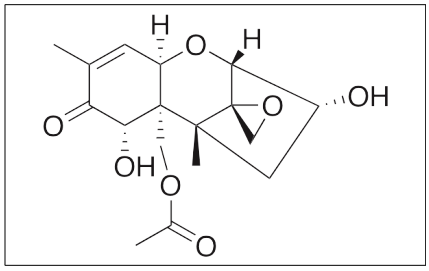
Product Information

Product ID D1761
CAS No. 88337-96-6
Chemical Name

Synonym 15-Acetyldeoxynivalenol, 15-A-DON, 15-Acetyl Vomitoxin, 15-AcDON, Deoxynivalenol 15-acetate, DON 15-acetate

Formula $C_{17}H_{22}O_7$
Formula Wt. 338.35
Melting Point 185-187°C
Purity ≥98%, TLC
Solubility Soluble in acetonitrile, methanol and ethyl acetate, only slightly soluble in water.
Store Temp 4°C
Ship Temp Ambient



Bulk quanitites available upon request

Product ID	Size
D1761	0.1 mg
D1761	1 mg
D1761	5 mg

Description 15-acetyl deoxynivalenol (15-A-DON) a type A trichothecene mycotoxin initially produced by species of *Fusarium*. 15-A-DON is typically found in grains used for livestock feed as well as human consumption, such as cereal and bread. This compound exhibits potential anticancer and immunomodulatory benefit in vitro, upregulating IL-8 production and inducing apoptosis in Jurkat T cells. 15-A-DON also displays biphasic effects on cytokine production in CD4+ T cells, initially decreasing expression of IL-2, IL-4, and IL-5, then increasing expression of all three after 7 days of exposure.

References

Puri KD, Zhong S. The 3ADON population of Fusarium graminearum found in North Dakota is more aggressive and produces a higher level of DON than the prevalent 15ADON population in spring wheat. Phytopathology. 2010 Oct;100(10):1007-14. PMID: 20839936.

Monbaliu S, Van Poucke C, Detavernier C, et al. Occurrence of mycotoxins in feed as analyzed by a multi-mycotoxin LC-MS/MS method. J Agric Food Chem. 2010 Jan 13;58(1):66-71. PMID: 19994896.

Gottschalk C, Barthel J, Engelhardt G, et al. Occurrence of type A trichothecenes in conventionally and organically produced oats and oat products. Mol Nutr Food Res. 2007 Dec;51(12):1547-53. PMID: 18030660.

Pestka JJ, Uzarski RL, Islam Z. Induction of apoptosis and cytokine production in the Jurkat human T cells by deoxynivalenol: role of mitogen-activated protein kinases and comparison to other 8-ketotrichothecenes. Toxicology. 2005 Jan 15;206(2):207-19. PMID: 15588914.

Ouyang YL, Azcona-Olivera JI, Pestka JJ. Effects of trichothecene structure on cytokine secretion and gene expression in murine CD4+ T-cells. Toxicology. 1995 Dec 15;104(1-3):187-202. PMID: 8560498.